

4.2.1 INSUFFICIENT DATA

The statutory obligation to manage bay scallops according to sustainable harvest cannot be met until the appropriate data are collected. Data on bay scallops are limited to landings from the commercial fishery and an independent survey that has not been sampled consistently until recently. Individual trip information has been available since the initiation of the trip ticket program in 1994. A long-term fishery-independent monitoring program is necessary to provide an indicator of abundance. A socioeconomic survey on the commercial participants and processors is necessary to determine specific business characteristics and the economics of working in the fishery.

Recreational harvest data does not exist and funding is unavailable to collect information on the recreational harvest of bay scallops at this time. Collection of recreational harvest information would provide a better estimate of fishing mortality and relative abundance of bay scallops. A socioeconomic survey on the recreational participants would provide information on the economic impacts and social importance of the recreational bay scallop fishery. It would improve our knowledge of the variation in abundance caused by a combination of both fishing effort and environmental change. A more accurate account of landings would allow managers to examine the proportional harvest of recreational and commercial fisheries and make better decisions on management strategies for both harvest sectors.

Specific issues, options, and potential actions are outlined in Sections 7.0, 9.0 and 10.0.

4.2.2 ENVIRONMENTAL CONCERNS

The bay scallop, unlike many estuarine species, is very habitat specific in its distribution, occurring almost exclusively in high salinity beds of Submerged Aquatic Vegetation (SAV). The use of any gears in SAV has been controversial since these seagrasses provide protection and food for a multitude of species, including bay scallops. Several bottom disturbing fishing gears have the potential to destroy or damage SAV. Damage from fishing gear varies in severity. Hand gear such as bull rakes and hand tongs can uproot SAV and cause damage, but generally to smaller areas than mechanical gear. Gears that disturb the sediment and below-ground plant structures, like toothed dredges, and heavy trawls, may cause total loss of SAV in the affected area, requiring extensive time to recover. The greatest potential for trawling over SAV beds is in Core and Bogue sounds where the majority of the bay scallop population occurs. Current knowledge of bay scallop dredging indicates that they have impacts on SAVs that negatively effect juvenile bay scallops. Effects from boat prop scarring are additional negative impact to SAVs. Suitable and adequate habitat is a critical element in the ecology and productivity of bay scallops. The extent to which extreme weather and water quality events impact bay scallop survival is still poorly understood.

Specific issues, options, and potential actions are outlined in Sections 8.0, 9.0, and 10.0.